

Watching their success can help teens with autism master important life skills

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Watching a video of themselves on an iPad successfully solving a problem can help students with autism master critical life skills.

Like all special education instructors, Cami Burton aims to help her students with autism and developmental disabilities master real-life skills that will allow them to become more independent.

But traditional teaching methods often fail to give these [students](#) the

practice and reinforcement they need to embed the important skills that can enhance their long-term life outcomes.

Now, a promising study Burton conducted at Brigham Young University using iPads combined with a proven video instruction technique has helped children with autism develop and retain important [math skills](#).

The research was conducted by Burton, a graduate student in the David O. McKay School of Education, and faculty members Darlene Anderson, Mary Anne Prater and Tina Dyches.

While many studies have shown the benefits of VSM or video self-modeling—filming students as they successfully solve a problem or complete an assignment—in regular educational settings, few studies have investigated the use of VSM in teaching core skills such as math and science to students with autism and [intellectual disabilities](#).

In the BYU study, several junior high school-age students with autism used an iPad that showed a video of themselves accurately and independently solving a practical math problem: Estimating the amount of money they needed to pay for an item as well as how much they should get back in change.

They were then asked to solve similar problems using the VSM as a guide. Gradually, over time, the students were asked to figure out the math problem without the VSM.

The results: The students were able to independently solve the [math problems](#) with an accuracy of between 80 and 100 percent.

And, best of all, they enjoyed it. All student participants indicated that they liked having a video made of them in class and stated that they enjoyed using the iPad and watching a video of themselves.

As one student stated, "It was cool and fun."

Children with autism have difficulty generalizing, Burton explained.

"We want them to be able to generalize what they've learned and apply it to new skills. Anything visual will help heighten their awareness of the task," she said.

"We're not always able to capture their potential," said Anderson. "These new technologies can make that possible."

The BYU researchers also observed that, without exception, all of the students seemed enthusiastic and excited to participate in the study each day.

"We noticed an immediate and abrupt change in student performance each time the video model was introduced," Burton said. "Students with serious behavior issues—such as aggression and fidgeting—seemed to remain on task to a greater extent than when the iPads weren't used."

Said Anderson, "The students were clearly focused and engaged."

The research, published in the journal *Focus on Autism and Other Developmental Disabilities*, documented the positive functional relationship between viewing the VSM and student performance.

Burton, who completed her master's thesis while working as a full-time teacher, was motivated by her desire to use her research to help the students she works with every day.

"Our research indicated that video self-modeling via an iPad may be an effective way to deliver academic content to adolescent students with [autism](#) and intellectual disability," said Burton, who continues to

successfully use the iPad/VSM method in her classes.

Future research should be easy to implement, since, thanks to ever-improving iPad applications, the video models are simple to create and are easily demonstrated and measured, Anderson said.

"I believe this model could transfer to anything you're willing to apply it to," said Burton. "And it's very socially appropriate and easy for these students to carry an iPad around with them."

In addition to its educational value, this research highlights how BYU graduate and undergraduate students and faculty members are working together to provide significant research.

More information: bit.ly/17PnHRR

Provided by Brigham Young University

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